



GENERATIONALLY DRIVEN INFLUENCE OF ROLE-MODELS ON
ENTREPRENEURSHIP: 'INSTITUTIONAL MEMORY' IN A
TRANSITION ECONOMY

CEBR Working Paper Series, 03-2008

June, 2008

Esteban M. Lafuente*

Centre for Entrepreneurship & Business Research (CEBR). Bucharest, Romania
Universitat Autònoma de Barcelona, Department of Business Economics
Edifici B, 08193 Bellaterra (Barcelona) Spain
Tel. +34 93 581 1209, fax. +34 93 581 2555
Email: Esteban.Lafuente@kfacts.com

Yancy Vaillant

Grup de Recerca en Desenvolupament Rural (DRUAB)
Universitat Autònoma de Barcelona, Department of Business Economics
Edifici B, 08193 Bellaterra (Barcelona) Spain
Tel. +34 93 581 1209, fax. +34 93 581 2555
Email: Yancy.Vaillant@uab.cat

* Corresponding author



GENERATIONALLY DRIVEN INFLUENCE OF ROLE-MODELS ON ENTREPRENEURSHIP: 'INSTITUTIONAL MEMORY' IN A TRANSITION ECONOMY

Abstract:

The paper examines the differential impact of entrepreneurial role models over entrepreneurial activities at different stages of an individual's life cycle in Romania. To attain this objective, we adopt a socio institutional approach to entrepreneurship. We carry out a Rare Events logit model using a robust Romanian dataset from 2006. The main contribution of the study indicates that the effect of entrepreneurial role models on entrepreneurial activities is generationally driven. Our results indicate that, together with the lack of positive role models, older individual are affected by an 'institutional memory' inherited from their exposition to a framework based on central planning, diluting the positive effect of role models over entrepreneurship. To the contrary, younger individuals, who have been mainly exposed to a market based economy, have a more positive societal valuation of entrepreneurial examples which increases the positive effect that the knowledge of an entrepreneur has on their attitudes towards entrepreneurial activities.

JEL Classification: B52, M13.

Keywords: Entrepreneurship, Institutions, Role-Models, Romania.

1. INTRODUCTION

The presence of individuals that have started their own businesses has been found to influence others within their social network towards a similar behaviour (Wagner, 2004; Lafuente et al., 2007 and Vaillant and Lafuente, 2007). A positive entrepreneurial example leads to an increase in the likelihood that other agents also become entrepreneurs (Speizer, 1981). Thus, the higher the number of entrepreneurs, the higher the likelihood that other agents, within a socially tight context, will change their propensity towards an entrepreneurial career (Gibson, 2004). Once a critical mass is overcome, the local institutional framework evolves to include a new social cognitive perception that is more fertile for entrepreneurial activity. Regions therefore differ in their entrepreneurial propensity, according to Fornahl (2003), because of ‘small historical singularities’ that lead to a situation in which regions develop different common cognitive perceptions, influencing the diffusion of new positive examples (Role-models). As a consequence, the acceptance of entrepreneurial activity within the region becomes socially embedded.

The impact of these entrepreneurial role models over the likeliness of individuals to engage in entrepreneurial activities has been empirically demonstrated to vary across territories with different institutional frameworks, often explaining part of the variances in entrepreneurship levels from one territory to another (Lafuente et al., 2007 and Vaillant and Lafuente, 2007).

The argument that supports this lies on the evolutionary institutional path that some regions adopt, which can gradually lead to the embedded character of informal

institutions as a result of their cultural content (North, 1981, 1990). According to North (2005) there can exist 'radically differential' performance of economies over long periods of time due to the general path dependency of institutions.

However, formal institutions are subordinate to informal ones in the sense that they are the deliberate means used to structure the interactions of a society in line with the norms and cultural guidelines that make up its informal institutions (North, 1995). Policy making that attempts to change the formal institutions of society will therefore have little success if it does not first adjust the informal institutions in a compatible way. The difficulties arise from the fact that, whereas a governing body can influence the evolution of a society's formal institutions in a rather direct way, informal institutions are much less tangible and usually fall outside the direct influence of public policy. They can be moulded, but tend to resist change and take time to evolve towards new social norms.

But what happens to the impact of entrepreneurial role models when extraordinary events occur which bring about radical institutional change to a territory. Does the role model effect that existed under the previous institutional framework automatically disappear? Or is there an institutional memory which can help maintain the influence of entrepreneurial role models beyond the change in direction of a society's institutional evolutionary path?

And in the case of transition economies that have passed from formal institutional frameworks based upon central planning to ones oriented towards a market economy, does the near absence of entrepreneurial role models under central planning affect today's entrepreneurial activity within market institutions? Entrepreneurship is a key

ingredient required for these countries to consolidate their sprouting market economies. The lack of positive role models under a planned economic institutional framework, or rather the presence of perceived negative ones emanating from the informal and underground economies, could be still today weighing down the efforts to promote entrepreneurship. This appears to dilute the potentially positive effect of entrepreneurial role models over business creation. But how could this affect those younger individuals that have lived most of their lives under a market system? Could the influence of role models over entrepreneurial activity be generational? Could there be 'institutional memory' when it comes to entrepreneurial role models and their effect over entrepreneurship? Could this institutional memory be limiting the positive impact of entrepreneurial role models over business creation in an ex-planned economy such as Romania?

This paper attempts to answer this last question and consequently help give leads to answering the remaining questions found in the previous paragraphs. Therefore, in consonance with the important institutional changes that occurred in Romania during its transition from a planned to a market economic system, our main research objective guiding this paper is to identify whether the impact of role models over entrepreneurial activity in that country is generationally driven.

The remainder of the paper is organised as follows. Section two presents our literature review. Section three describes our methodological approach. Section four comprises our empirical findings and our final conclusions are presented in section five.

2. LITERATURE REVIEW

The growing awareness over the last decades of the importance of new enterprises and SMEs within economic development has led many public administrations from all political ideologies and of all administrative levels to develop policy favouring and stimulating the creation of new enterprises (European Commission, 2003a).

Entrepreneurial activity has also attracted the interest of many researchers who have demonstrated that increase levels of entrepreneurial activity can have positive repercussions on employment generation (Storey, 1982, 1988, 1994; Kirchoff and Phillips, 1988, 1992 and White and Reynolds, 1996), on economic growth (Sexton, 1986; Dubini, 1989; Storey, 1994 and Wennekers and Thurik, 1999), and on innovation (Drucker, 1984, 1985; Pavitt et al., 1987; Acs and Audretsch, 1988 and Acs and Varga, 2004).

However, although the positive repercussions of entrepreneurial activity and business creation has reached considerable acceptance, which consequently has led to important policy efforts for the support and promotion of entrepreneurship, much less agreement exist on the factors that positively contribute to stimulating entrepreneurial activity.

Bygrave (1995) developed an entrepreneurial process model with the aim to determine the critical factors that give birth to new enterprises. The entrepreneurial process is placed at the centre of a framework composed of personal, sociological, and environmental factors that influence the different steps of the entrepreneurial process and consequently the creation of new enterprises. One of the most consistent factors

included within Bygrave's entrepreneurial process is the presence of entrepreneurial role models because, according to this model, they play an important part in facilitating opportunity detection and business idea generation within the initial Innovation stage of the entrepreneurial process. Role models also can act as a stimulus within the Triggering Event stage. Finally, the presence of positive entrepreneurial examples, according to Bygrave (1995) is very important during the Implementation stage since 'knowing successful entrepreneurs makes the act of becoming one yourself seem much more credible'. Someone who is in close contact with an entrepreneurial Role-Model is more likely to develop the desire and confidence needed to create their own business.

Following Shapero (1971), Veciana (1980), and Shapero and Sokol (1982), who remarked the importance of positive examples over the decision to become an entrepreneur, Fornahl (2003) proposed that amongst the factors influencing entrepreneurial activity, the role of positive entrepreneurial examples is especially important. The presence of entrepreneurial Role-Models strongly influences the cognitive representation of economic agents and strongly influences their behaviour through the different decisions needed to become an entrepreneur (Krueger, 1993). The argument is that the 'development and the related likelihood of discovering entrepreneurial opportunities and increasing the willingness to start a new firm is strongly influenced by positive examples, so-called role models' (Fornahl, 2003: 50). These positive examples have two main effects, first, it may make it easier to discover and act upon entrepreneurial opportunities if other similar and successful business opportunities, identified by others, can serve as references. Second, entrepreneurial example leads to a (re-) allocation of cognitive attention to certain opportunities or business conceptions affecting the direction of the active search, and perception, of

opportunities as well as the confidence in ones own entrepreneurial possibilities. A positive example leads to an increase in the likelihood that other agents also become entrepreneurs (Speizer, 1981), since the internal reaction of an individual influenced by a role model is that “if she/he can, why can’t I?” (Veciana, 1980).

As a result many entrepreneurship support policies are making use of entrepreneurial role models as a tool to help stimulate entrepreneurial behaviour. According to the European Commission’s Green Paper on entrepreneurship, an essential tool for the promotion of an entrepreneurial culture and positive attitudes towards entrepreneurship is “providing role-models through the ‘showcasing’ of success stories” (European Commission, 2003a: 21).

We therefore formulate the first hypothesis to be tested within this study in order to empirically verify the existence and weight of the role model effect upon the entrepreneurial activity of the observed sample of Romanian adults.

H1: If an individual personally knows an entrepreneur, he/she will be more likely to be involved in entrepreneurial activities.

North (1981, 1990 and 2005) explains how the performance of economies is influenced by institutional change. According to this author, the interactions between institutions and organisations (economic, political, or social) shape the direction of institutional change and ultimately the performance of economies. Institutions determine the opportunities of society and organisations are created to take advantage of these opportunities. As the organisations evolve, they alter the institutions. The resultant path

of institutional change, according to this author, can lead to a 'lock-in' that comes from the symbiotic relationship between institutions and evolving organisations as a consequence of the incentive structure provided by those institutions and the dynamic feedback process by which human beings perceive and react to changes in the opportunity set' (North 1990: 7). But for this to occur there needs to be an adequate supply of entrepreneurs who are able to detect and act upon these changes in the opportunity set of the economy. If not, there will be an organizational gap and the economy runs the risk of entering a stagnant situation where institutions come to serve the sole purpose and interests of maintaining existing organisations.

This is why stimulating entrepreneurship becomes a fundamental task of policy makers in transition economies to ensure the proper institutional development that will lead towards a dynamic market economy. For these economies that have experience the traumatic change from a planned economy, where the state had the sole control of creating new organisations and individual economic initiatives were stifled, to a market based economy (dependent on private initiatives), the institutional change will tend to generate important organisational gaps.

Before 1990 Romania, as the rest of former communist countries in Eastern Europe, was characterised by a centrally planned economy, where the economic environment was dominated by large state-owned firms producing few consumer goods. Under this system (Stage 1 in Figure 1), legal codes and courts were practically moot since regulated transactions only existed between state-owned companies. Self-employment was almost totally prohibited through implicit elements, i.e., ideological motivations more aligned to the Communist economic view of markets and labour conditions. In

addition, price and salary controls, the centralised allocation of key inputs, such as energy, credit and industrial materials, shortages of other factors as well as the nature of the legal and bureaucratic structures clearly hindered any formal effort related to entrepreneurial activities (McMillan and Woodruff, 2002). The formal private sector under Romanian planned economy was insignificant and restricted to small private farming, small-scale domestic construction and certain specialist repair workshops (Stoica, 2004). Despite the repressive control on economic life, an illegal economy focused on trade and repair services, currency speculation and misappropriation of goods from state companies emerged in parallel to the legal economy (Neef, 2002). This underground sector was, nevertheless, tolerated by the Romanian regime in order to attenuate the effects of systematic economic crisis (Stoica, 2004).

Therefore, we argue that in this stage entrepreneurship was neither a career alternative nor perceived as positive by society. Individuals might have been unwilling to assume the economic and political risks and punishments linked to private business ventures.

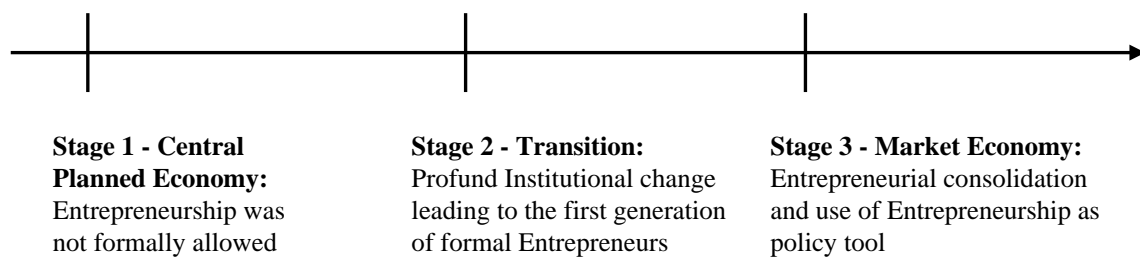
With the breakdown of the planned economy in 1990, Romania underwent a deep and troubled reform process. At this point, we remark that in this paper we only consider significant institutional changes that may affect entrepreneurial activities. Tismaneanu (1993), Ibrahim and Galt (2002), Stoica (2004), and Scarlat and Scarlat (2007) present reviews of the Romanian transition process in much greater length.

In the transition period (Stage 2 in Figure 1) new legal codes and courts able to enforce contracts between newly created firms were introduced (Murrell, 2003). In the early years of transition, reform processes aimed to underpin formal market institutions

through a greater flexibility in prices, wages and contractual autonomy. However, they had to consolidate and learn how to govern more complex relationships.

According to OECD (1998), two types of entrepreneurs emerged in this period. First, individuals with previous labour experience in the state sector, who benefit from personal connections with banks and engaged in manufacturing. The second group of entrepreneurs was composed of educated young businessmen with limited access to capital who engaged in sectors with low entry costs, such as shops and restaurants.

Figure 1. Timing of events



Moreover, as Tismaneanu (1993) remarks, the Romanian society was characterised by a strong exaltation of a nationally homogenous community and distrust of market relations and an intense cultivation of collective identities and attachments. Arguably, the lack of foundation for market-oriented institutions, together with the institutional heritage from the Communist era, represented serious problems which could mitigate the acceptance of these new institutions after their imposition. In Romania, the old power relationships and networks between public administration and managers of large enterprises remained during transition (Pasti, 1997), which could indicate why Romanian politic and economic development in this stage was still influenced by industrial policies from the past. This may help explain the poor economic performance

during transition, where attempts at mass privatisation were unsuccessful, industrial sectors showed a downward trend and income inequalities increased (Bunce, 2000).

For this first generation of Romanian entrepreneurs, key success factors were marked by their access to finance, and their ability to mobilise resources from third parties, which predominantly depended on their pass credentials within the planned economy. Given the background of these individuals, it is not surprising that the introduction of new institutions has been difficult and in some cases inappropriate. Consequently, new formal institutions (laws and implementation bodies) were quickly set-up. However, their effective implementation came about very slowly as the Romanian society gradually assimilated the new values of the market economy into its social routines (Clark and Soulsby, 1999).

Hence, in this period individuals were lacking an efficient formal institutional support that facilitated the development of entrepreneurial activities in Romania (McMillan and Woodruff, 2002). It can be argued that these factors were a combination of informal (the legacy from the past), and formal institutional factors, such as the complications in the new legal system and the tight macroeconomic stabilisation policies. Another major problem facing entrepreneurs was the deficiencies of the financial sector. The complexity of the banking procedures, the lack of experience in banking, and the high interest rates were important constraints faced by potential Romanian entrepreneurs during this stage of transition (IMF, 1996).

These institutional deficiencies represented important entry barriers for potential entrepreneurs. A firm's ability to survive during this period did not depend on the

development of competitive advantages, but rather on how they engaged through market and non-market relations within a complex set of institutions (OECD, 1998).

Despite this, the heritage from the planned economy created a clear supply gap concerning trade and services, which individuals interpreted as business opportunities (McMillan and Woodruff, 2002). Hence, between 1990 and 1997 645,000 new firms were officially established in Romania, many of which were the result of the formalisation of activities previously carried out within the submerged economy. However, many of these firms were unable to overcome financial constraints, corruption, and power relationships that restricted the implementation of these policies. Many of these firms had short life cycles as they were created in sectors where entry and exit was easy (trade and services) and where there is little fixed and human capital (Centre for Small and Medium-Sized Enterprises, 1997).

Furthermore, individuals lacked the necessary entrepreneurial skills to successfully lead a new venture within such a complex and turbulent environment. The human capital creation process under the planned system may have become less efficient when confronted to the market economy. This is because the political structure in these countries constrained the accumulation of business experiences, and the educational system was biased towards hard sciences and engineering, neglecting social sciences, law, business and public policy (Kovacs and Virag, 1995).

Notwithstanding the external environment usually influence entrepreneurship in transition economies, history matters and it can be argued that the social context

inherited from the planned economy may have negatively affected the social attitudes and individual behaviour towards entrepreneurship (Smallbone and Welter, 2001).

Consequently, the first generation of Romanian entrepreneurs was discouraged by contradictory social norms and restricted by formal institutional obstacles which had to be overcome to succeed in the newly established economic system. This increased the probability of failure amongst these new start-ups.

Since 2002, and after a gradual and troubled transition process, Romania has made important progress with reforms. This new stage has mainly been motivated and driven by Romania's need to harmonise its formal legal institutions with those of the European Union for accession purposes (Stage 3). In its annual report, the European Commission (2003b) catalogued the Romanian economic system as a functional market economy. For 2002, nearly 70% of economic activity was in private hands, as compared to the 45% showed in 1995 (Ibrahim and Galt, 2002). The Romanian economy in 2002 showed significant advances in the gradual opening of key markets such as energy. Some key reforms had also been initiated within the country's banking sector and infrastructures.

Arguably, this second transition process linked with Romania's accession to the EU ended with the latest EU enlargement in 2007. This second transition has led to an improvement of Romania's internal conditions required for the establishment of an entrepreneurial society. For instance, statistics from Eurostat show that inflation, after peaking in 2000 (45.7%), shows a decreasing rate between 2002 (22.5%) to 2005 (9%). Also, entrepreneurial activities are supported by governmental and EU agencies

created to this purpose. As can be seen in Table 1, entrepreneurial growth and density experienced important increases during this second transition that were consistent throughout all regions of Romania.

Table 1. Evolution in the number of Enterprises in Romania (1999 – 2005)

	Net change in the number of firms ^(a)		Enterprise Density ^(b)		
	Total Net entries	Annual Net Growth	1999	2005	Annual variation rate (1999-2005)
Bucharest	18,131	6.14%	3.01	4.73	8.16%
Centre	9,620	4.76%	1.61	2.32	6.27%
West	9,490	6.13%	1.56	2.40	7.69%
South	5,563	3.00%	1.16	1.56	4.97%
South-East	5,660	2.86%	1.61	2.17	4.95%
South-West	4,216	3.19%	1.20	1.64	5.23%
North-East	7,023	3.99%	0.98	1.35	5.43%
North-West	11,030	4.94%	1.63	2.37	6.53%
Romania	70,732	4.48%	1.53	2.20	6.34%

Notes: (a) Total net entries refers to the difference between the number of active enterprises in 2005 and 1999, and Net Growth corresponds to the annual increase in the number of active enterprises from 1999 to 2005. (b) Enterprise density refers to the number of enterprises per 100 inhabitants.

The regional distribution follows the NUTS criteria: Bucharest is the capital. Centre includes Alba, Brazov, Covasna, Harghita, Mures and Sibiu. West includes Arad, Caras-Severin, Hunedoara and Timis. North west includes Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu-Mare and Salaj. North east includes Bacau, Botosani, Iasi, Neamt, Suceava and Vaslui. South includes Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova, Teleorman. South west includes Dolj, Gorj, Mehedinti, Oltenia and Valcea. South east includes Braila, Buzau, Constanta, Galati, Tulcea and Vrancea.

Source: Self-devised from Lafuente and Driga (2008).

The social traits that may exert an influence over entrepreneurial activities tend to be stable over short periods of time (Hofstede, 1980). However, these social traits, as entrepreneurial role-models, may experience changes in terms of societal valuation, which could lead to an increase the society's motivations to engage in entrepreneurial activities. Therefore, entrepreneurship and the entrepreneur are dynamic concepts that evolve over individual's life cycle (Gartner and Shane, 1995). The second generation of Romanian entrepreneurs benefits from a greater practical business knowledge and skills, a more positive societal valuation of business creation as a valid career alternative as

well as the positive perception of entrepreneurial examples. In addition, this generation is exposed to more friendly economic conditions to start a new business, relative to the first generation of Romanian entrepreneurs.

The theoretical deductions coming from the literature review presented above, in line with the research objectives from the study's problem statement, leads us to believe that the younger generation of Romanians who have been primary exposed to an institutional framework based on the market economy will be more positively influenced towards entrepreneurial activity by the presence of entrepreneurial examples in their close social circle. We therefore formulate our second hypotheses:

H2: The positive relationship between entrepreneurial Role-Models and entrepreneurial activities is stronger for younger individuals.

3. DATA AND METHOD

3.1 Data

The data used to carry out this study comes from the Romanian Centre for Entrepreneurship and Business Research (CEBR) for the year 2006. The CEBR is an organisation that promotes and develops research in the fields of entrepreneurship and business economics in Romania. The database provided by the CEBR was collected between January and March 2007, and it was designed to provide information about selected characteristics of Romanian individuals. Data collection by the CEBR was achieved through self-administrated, structured questionnaires where individuals were

asked to answer essentially close questions. The questionnaire was also subject to a pre-test in order to correct potentially misleading or confusing questions. Further detail about the questionnaire and the sample used in this research is available from the authors on request.

The original database used to reach the aim of this research contained information for 1343 non-entrepreneurially active and 895 potential and active entrepreneurs owning firms which were created after 1990. However, in the interest of following a rigorous methodology, only individuals for whom a complete dataset of the independent variables can be constructed are included.

As it can be seen in Table 2, data availability limits the sample to 1449 individuals. We also observe that our sample has information for individuals from all the Romanian regions, where nearly 25% of individuals reside in Bucharest. There is also a significant representation of individuals from the South-east (16.56%), the North-east (13.53%) and the North-western regions (11.66%).

Table 2. Geographical composition of the sample

	Total number of individuals	% of total individuals
Bucharest	356	24.57%
Centre	137	9.45%
West	120	8.28%
North West	169	11.66%
North East	196	13.53%
South	126	8.70%
South West	105	7.25%
South East	240	16.56%
Total	1449	100.00%

For details of the regional distribution see Table 1.

Furthermore, the regional configuration of our sample is similar to the figures presented in a recent report on business demographics in Romania (Lafuente and Driga, 2008), which indicates that, for 2005, nearly 22% of firms operated in the capital region, whereas in the south-east and north-east regions this proportion stood at 12.76% and 10.52%, respectively. Finally, similar results are obtained for those regions that show the lowest proportion of individuals (West and South-west). In our sample 8.28% and 7.25% of individuals live in these regions, respectively; whereas for 2005 the values reported by Lafuente and Driga (2008) are 9.79% and 8.03% for West and South-west Romania.

3.2 Variable Definition

Before going further we must define what is meant by entrepreneurial activity. From our dataset we can distinguish between two types of entrepreneurial activities. First, we consider the proportion of respondents who are involved in pre start-up entrepreneurial activities. A person is said to be involved in pre start-up activities if he/she has undertaken over the previous 12 months any concrete efforts, (such as the development of a business plan, the search for finance, the establishment of a team of founding partners, etc.) aimed at starting a business without receiving any pecuniary reward for doing so. From Table 3 we observe that the level of pre start-up entrepreneurial activity in our sample is 7.87%. In addition, South-western region shows the highest pre start-up entrepreneurial activity rate (11.43%), whereas Centre region exhibit the lowest (5.11%) (Table 3).

Table 3. Entrepreneurial Activities by Geographical Region

	Pre Start-up entrepreneurial activities	Post Start-up entrepreneurial activities
Bucharest	0.0843 (0.2782)	0.1461 (0.3537)
Centre	0.0511 (0.2210)	0.1606 (0.3685)
West	0.0833 (0.2775)	0.1833 (0.3886)
North West	0.0769 (0.2673)	0.1716 (0.3782)
North East	0.0612 (0.2404)	0.1735 (0.3796)
South	0.0873 (0.2834)	0.1508 (0.3593)
South West	0.1143 (0.3197)	0.1810 (0.3868)
South East	0.0792 (0.2706)	0.1458 (0.3537)
Total	0.0787 (0.2693)	0.1601 (0.3668)

For details of the regional distribution see Table 1.
Standard deviation is presented in brackets.

Second, we identified the respondents who are involved in post start-up entrepreneurial activities. A person is considered to be involved in post start-up entrepreneurial activities if he/she is owner of a business that has been paying salaries for a period of no more than 36 months. In our sample, the level of post start-up entrepreneurial activity is 16.01%, where the Western region shows the highest post start-up activity level (18.33%), whereas the lowest post start-up activity rate is found in the South-eastern region (14.58%) (Table 3).

To determine the entrepreneur's profile we consider a set of independent variables commonly found in models trying to explain entrepreneurial activity (Johansson, 2000; Uusitalo, 2001; Douglas and Shepard, 2002; Wagner, 2004; Lafuente et al., 2007 and Vaillant and Lafuente, 2007).

Table 4. Descriptive statistics of selected variables

	Pre Start-up entrepreneurial activities	Post Start-up entrepreneurial activities	Overall	Kruskal Wallis chi-test (medians)
Pre start-up entrepreneurial activities	-----	-----	0.0787 (0.2693)	
Post start-up entrepreneurial activities	-----	-----	0.1601 (0.3668)	
Gender (1 for man, 0 otherwise)	0.4649 (0.5010)	0.5862 (0.4936)	0.5604 (0.4965)	4.524 ^(**)
Age (years)	35.3860 (8.3141)	33.6509 (7.7227)	34.4072 (8.4875)	3.428 ^(*)
Management Studies	0.6579 (0.4765)	0.5086 (0.5010)	0.5321 (0.4991)	6.885 ^(***)
Personal knowledge of an entrepreneur	0.2895 (0.4555)	0.1034 (0.3052)	0.2291 (0.4204)	19.168 ^(***)
Number of observations	114	232	1449	

Standard deviation is presented in brackets. *, **, *** indicates significance at the 0.10, 0.05 and 0.01, respectively.

First we consider the individual's gender. Gender is an important factor explaining the different propensity levels of individuals towards entrepreneurial activity. Gender distribution of entrepreneurship also determines the character and societal impact of the resulting entrepreneurship (OECD, 2004). Depending on the gender system of an economy, women entrepreneurial activity levels are usually lower than men's and, at the same time, women's entrepreneurship tends to have a different industrial configuration than men's entrepreneurship (Carter et al., 2001 and Driga et al., 2008). Women also start and manage firms in different ways and for different motivations than do men (Brush, 1992). Women often have access to 'fewer resources, less knowledge and have in many countries a lower societal position than men' (OECD, 2004: 30), nevertheless, women's entrepreneurship has been recognised during the last decade as an important untapped source of economic growth (OECD, 2004). Thus, in our models we introduce a dummy variable for gender, taking a value of one if the individual is a man, and zero otherwise. As it can be seen in Table 4, there is a statistically significant difference in the proportion of men involved in post start-up entrepreneurial activities as compared to those who are involved in pre start-up entrepreneurial activities.

The second factor considered is the individual's age. According to Singh and Verma (2001) the decision to become an entrepreneur is affected by different factors along an individual's life cycle. Labour economists, using income-leisure choice models, have usually attributed the choice of leisure to older workers (Singh and Denoble, 2003). This would indicate a gradual decline in the propensity of individuals towards entrepreneurial activity as they become older. This decline usually starts past a climax point around the late thirties, at which point most entrepreneurs enter into entrepreneurship following a period of labour activity (Katz, 1994). The link between

age and entrepreneurial activity is double sided. Whereas older individuals usually have greater tangible and intangible resources essential for successful business creation, younger individuals often have the greater drive and the needed ambition to persevere through the entrepreneurial process.

Most empirical research examines entrepreneurship under a uniform formal institutional frameworks where the decision to become entrepreneur is more linked to the access to specific resources, knowledge and ambitions. However, would this be consistent in the case of Romania?

Here, the predisposition to entrepreneurship is conditioned by both the abrupt institutional change experienced by Romania after 1990 (from a centrally planned to a market economy), and by the incorporation of new values and traits to society. As we indicated in our framework, older individuals, more exposed to an institutional framework based on central planning, lacked incentives and the necessary knowledge to undertake entrepreneurial activities. Moreover, under this system, self-employment was prohibited which hindered the accumulation of business experience and, consequently, the presence of role models before 1990. Therefore, these individuals were subject to a specific social context inherited from the Communist era that created an institutional memory which can negatively affect their attitudes towards entrepreneurial activities in the market economy.

To the contrary, those individuals mainly exposed to an institutional framework based on a market economy are less likely to be negatively influenced by this institutional memory from the past. In fact, younger individuals benefit from a higher exposure to a

market economy, a greater business knowledge and skills derived from a more open educational system, and to more adequate economic conditions to start new ventures. Hence, these younger individuals were moulded under a different set of societal values where the positive valuation of business creation as well as the positive perception of entrepreneurial examples dominate the landscape of this new informal institutional framework.

Consequently, we consider individual's age as an appropriate proxy variable to capture the cultural shift and the resulting institutional memory which conditions the attitudes towards entrepreneurial activities.

It is widely recognised that education influences people's attitudes towards starting their own business (Donkels, 1991; Krueger and Brazeal, 1994). Individuals with lower education levels may see in entrepreneurship an opportunity to advance, economically and socially, beyond the constraints imposed by their formal education (Donkels, 1991). However, individuals with lower formal education may have a narrower scope of entrepreneurial opportunities available to them (Krueger, 1993). As for individuals with higher educational attainments, on the one hand, they tend to have greater technical and managerial skills that open up a larger array of possible entrepreneurial opportunities (Krueger, 1993). On the other hand, greater formal education levels have also been associated with greater employment opportunities, leading to a higher opportunity cost of entrepreneurial activity (Johansson, 2000). Regarding the variable definition, our data allow us to define education as a dummy variable distinguishing people with university studies on management. From Table 4 we observe that respondents who are involved in pre start-up entrepreneurial activities show a statistically significant higher level of

education on management than that shown by individuals involved in post start-up entrepreneurial activities.

The Role-Model effect is a sociological phenomenon that has been widely studied (Shapiro et al., 1978 and Gibson, 2004) and has been applied to entrepreneurship as an informal institutional factor that can act as stimuli to entrepreneurial activity (Schein, 1978, Venkataraman, 2004, Lafuente et al., 2007 and Vaillant and Lafuente, 2007). It should be mentioned that whereas most of the literature on Role-Models considers that the positive effects of the phenomenon come from multiple and cumulated contacts with positive entrepreneurial examples, our analysis will limit itself to the personal knowledge of at least one entrepreneur in the family circle, i.e., *vicarious experience* according to Davidsson's (1995) terminology. The effect of the presence of a personal acquaintance that has created a business should act as stimuli along the different steps of the entrepreneurial process, and this effect is expected to be greater if the entrepreneurial example is closely tied to the individual (Davidsson, 1995 and 2004).

Our model will try to determine if this is so and whether the effect is equal for the different generations of Romanian entrepreneurs. From the descriptive statistics we observe that, on average, nearly 23% of respondents have an entrepreneurial example in their family circle, and this proportion is statistically significant higher for individuals involved in pre start-up entrepreneurial activities (28.95%) than what is found for recent entrepreneurs.

3.3 Method

An individual will become entrepreneurially active if the total consideration of push and pull factors considered in the analysis results in a positive decision. It is easy and convenient to consider the decision process for becoming an entrepreneur as a process that generates a binary choice model. Thus, to identify the differentiating characteristics that affect the likelihood to be involved in entrepreneurial activities, one can perform a logit regression model estimated by maximum likelihood method (Greene, 2003).

Nevertheless, as shown in Table 3, only 7.87% of all individuals considered in the total sample are involved in pre start-up entrepreneurial activities, whereas the nascent entrepreneurship rate stands at 16.01%. Consequently, the fact that a person is involved in one of the entrepreneurial activities studied here can be considered as a rare event. Therefore, the application of traditional logit models in samples where the binary dependent variable has much fewer ones (positive response) than zeros (no response) may lead to biased results due to the underestimation of the parameter estimates. Recently, King and Zeng (2001a and 2001b) developed a method for computing estimates in logit models that correct for the presence of rare events or small samples. This procedure, labelled rare events logit model, is based on the standard logit model, as presented in [1] and [2], but it uses an estimator that generates a lower root mean square error for coefficients. Empirical evidence in the entrepreneurship field that have applied this methodology can be found in Wagner (2004), Lafuente et al. (2007), Vaillant and Lafuente (2007) and Driga et al. (2008).

Parameter estimates from the rare events logit model only indicate the direction of the effect of each explanatory variable on the response probability. To obtain a better

understanding of the results, we also calculate the first difference, which is the change in the probability as a function of a specific change in a variable holding the rest of variables constant at their means, i.e., $\hat{\gamma}_x = \Pr(Y = 1|X = 1) - \Pr(Y = 1|X = 0)$.

To test whether the presence of entrepreneurial Role-Models have an influence upon the decisions of the entrepreneurial process we carry out two applications of the same model. The first application will take into consideration the interaction term between age and the presence of Role-Models to detect the differentiated effect of these variables over entrepreneurial activities. The second application considers interaction terms to detect the differentiated effect that the presence of entrepreneurial examples have on different stages of individual's life cycle. Thus, the full model to be estimated follows:

Entrepreneurial

$$\begin{aligned} \text{Activities}_i &= \hat{\beta}_0 + \hat{\beta}_1 \text{Gender}_i + \hat{\beta}_2 \text{Age}_i \\ &+ \hat{\beta}_3 \text{Management Education}_i + \hat{\beta}_4 \text{Role - Model}_i \\ &+ \hat{\beta}_{24} \text{Age}_i \times \text{Role - Model}_i + \hat{\beta}_5 \text{Region}_i + \varepsilon_i \end{aligned} \quad [1]$$

Regional dummies are also introduced in order to account for any difference in the intensity of entrepreneurial activities throughout Romanian regions. In terms of our hypotheses, we expect that $\hat{\beta}_4 > 0$ and $\hat{\beta}_{24} < 0$, indicating that the presence of entrepreneurial examples exerts a positive effect on entrepreneurial activities, being this effect weaker for older individuals.

Finally, we also calculate the proportion of correctly classified (predicted) observations as an additional measure of goodness of fit. This is done for the full sample as well as

for those observations that are entrepreneurially active (adopter) and those that are not (non-adopters).

4. EMPIRICAL FINDINGS

The results of the different applications of the rare events logit model to the entrepreneurial activities considered in this paper are presented in this section. The first specification found in column 1 of Tables 5 and 6 shows the results from our basic model, whereas the second specification presents the results for the full model, where the interaction term between age and the presence of entrepreneurial Role-Models is considered.

When analysing the results for pre start-up entrepreneurial activities, we find a statistically significant influence of being a woman over this entrepreneurship dimension. Thus, we observe that the probability of being involved in pre start-up entrepreneurial activities of men decreases by 3.14% relative to that for women ($\hat{\gamma}_1 = -0.03142$ in Table 6). Nevertheless, this only holds for pre start-up entrepreneurial activities. Our results also indicate that older individuals are more likely to be involved in pre start-up entrepreneurial activities, whereas this relationship is inconsistently negative in the case of post start-up entrepreneurial activities. Similar to Krueger (1993) and Vaillant and Lafuente (2007), our findings reveal that pre start-up entrepreneurial activities increase with higher levels of education. The result for the first difference shows that $\hat{\gamma}_3 = 0.03352$. This means that, holding the rest of variables constant at their median, individuals with management studies are 3.35% more likely to be involved in pre start-up entrepreneurial activities (Table 6).

Table 5. Rare events logit model: The impact of Role-Models on Entrepreneurial Activities

	Pre start-up entrepreneurial activities		Post start-up entrepreneurial activities	
	(1)	(2)	(1)	(2)
Gender (male)	-0.4121 ** (0.1999)	-0.4467 ** (0.2015)	0.0949 (0.1467)	0.0625 (0.1474)
Age (years)	0.0217 ** (0.0111)	0.0318 ** (0.0108)	-0.0196 ** (0.0085)	-0.0072 (0.0086)
Managerial studies	0.5469 *** (0.2049)	0.5169 ** (0.2067)	-0.0973 (0.1436)	-0.1359 (0.1449)
Role-Model	0.7406 *** (0.2063)	1.8848 *** (0.3978)	-1.1107 *** (0.2271)	1.9137 *** (0.3393)
Role-Model × Age		-0.0393 *** (0.0122)		-0.0924 *** (0.0152)
Regional dummies	YES	YES	YES	YES
Intercept	-3.4490 *** (0.4760)	-3.7899 *** (0.5048)	-0.8914 ** (0.3537)	-1.3967 *** (0.3617)
Pseudo R2	0.0389	0.0518	0.0286	0.0522
Log likelihood	-383.7162	-378.5456	-619.0889	-604.0624
LR (chi2)	31.46 ***	43.40 ***	29.80 ***	41.64 ***
Correctly predicted (adopters)	0.5789	0.5526	0.7888	0.6983
Correctly predicted (non-adopters)	0.6105	0.6375	0.4256	0.4930
Correctly predicted (full sample)	0.6080	0.6308	0.4838	0.5259
Observations	1,449	1,449	1,449	1,449

Robust standard errors are presented in brackets. Regional dummies are included in all specifications but they are not shown due to lack of space (The omitted regional variable is Bucharest). *, **, *** indicates significance at the 0.10, 0.05 and 0.01 levels, respectively.

Table 6. Rare events logit model: First differences in the probability to be involved in Entrepreneurial Activities

	Pre start-up entrepreneurial activities		Post start-up entrepreneurial activities	
	(1)	(2)	(1)	(2)
Gender (male)	-0.02781	-0.03142	0.01244	0.00706
Managerial studies	0.03652	0.03352	-0.01279	-0.01736
Role-Model	0.05782	0.19357	-0.11723	0.32519
Role-Model × Age ₁₈₋₄₅		-0.03029		-0.05448
Role-Model × Age ₁₈₋₂₅		-0.01087		-0.02748
Role-Model × Age ₂₆₋₃₀		-0.00487		-0.00889
Role-Model × Age ₃₁₋₃₅		-0.00399		-0.00576
Role-Model × Age ₃₆₋₄₀		-0.00335		-0.00377
Role-Model × Age ₄₁₋₄₅		-0.00278		-0.00234

Notes: The first difference represents the change in the probability as a result of a discrete change from zero to one in the independent variable, i.e. $\hat{\gamma}_x = \Pr(Y = 1 | X = 1) - \Pr(Y = 1 | X = 0)$. In the case of the interaction terms ($\hat{\gamma}_{24}$), the first difference refers to discrete changes in age (X_2) for individuals who personally know an entrepreneur ($X_4 = 1$), holding the rest of variables constant at their median.

An interesting result emerges when the variable capturing the influence of Role-Models over entrepreneur activities is analysed. Our results from specification 1 confirm the positive impact of entrepreneurial Role-Models on pre start-up entrepreneurial activities ($\hat{\gamma}_4 = 0.05782$ and $p - value < 0.05$), however, entrepreneurial examples are negatively correlated to post start-up entrepreneurial activities ($\hat{\gamma}_4 = -0.11723$ and $p - value < 0.05$) (Table 6). This could indicate that, in our sample, individuals are exposed to both positive and negative Role-Models.

Specification 2 reports the key findings of our rare events logit model that allows for age and the presence of entrepreneurial examples to have a differential effect on the entrepreneurial activities considered in this study. We observe that, holding the rest of variables constant at their median, the knowledge of entrepreneurial examples have a positive and statistically significant influence over pre and post start-up entrepreneurial activities, $\hat{\gamma}_4 = 0.19357$ and 0.32519 , respectively (Table 6). This is consistent with previous studies having use similar variables (Wagner, 2004; Lafuente et al., 2007; Vaillant and Lafuente, 2007 and Driga et al., 2008). We are therefore able to **confirm our first hypothesis (H1)**.

However, our results clearly indicate that the positive impact that entrepreneurial examples exert over entrepreneurial activities decreases with age. To illustrate this, we estimated the discrete change in the probability to be involved in entrepreneurial activities at different stages of an individual's life cycle (Table 6). For instance, if we compare two identical individuals who have an entrepreneurial Role-Model, but one is 18 and the other is 40 years old, the probability of the older individual to be involved in

pre start-up entrepreneurial activities is 2.66% lower relative to that one for the younger person ($\hat{\gamma}_{24} = -0.02660$ and $p - value < 0.05$). Likewise, the probability for post start-up entrepreneurial activities falls by 5.14% for the older individual as compared to that of the younger individual ($\hat{\gamma}_{24} = -0.05141$ and $p - value < 0.05$).

When examining the relationship between age and role-models at narrower age intervals, our findings indicate that for both entrepreneurial activities considered in this study, the negative relationship between age and Role-Models shows a decreasing slope (concave curve). Again, our results show that, holding the rest of variables constant at their median, if we compare two identical individuals who personally know an entrepreneur, being one 18 and the another one 25 years old, the older person is less likely to be involved in pre and post start-up entrepreneurial activities by nearly 1.1% and 2.75%, respectively, relative to the probability of the 18 years old person (Table 6). At this point, we remark that for all the first differences the confidence intervals at the 95% are negative, which supports that our estimations for the interaction terms are statistically different from zero. This allows us to **confirm our second hypothesis (H2)**.

Our results give support to the argument that the impact that entrepreneurial role models exert on entrepreneurial activities could be generationally driven. On the one hand, older individuals may have developed an 'institutional memory' due to their prior exposition to a centrally planned socio-economic context. Despite the radical formal institutional change, this 'institutional memory' may have diluted the potentially positive effect of entrepreneurial examples over these individual's attitudes towards entrepreneurial activities.

On the other hand, the deep formal institutional change that has occurred in Romania could be linked to a gradual shift in the societal valuation of social traits which favours the establishment of a more entrepreneurial society. Hence, younger individuals who are involved in entrepreneurial activities have been mainly exposed to a market economy. They therefore appear to be unaffected by this ‘institutional memory’ inherited from the past. Accordingly, our results strongly suggest the presence of an evolution in the Romanian informal institutional framework, which leads these individuals to exhibit a different societal valuation of business creation as well as a more positive perception of entrepreneurial examples. These facts help explain the statistically significant greater positive effect that the presence of entrepreneurial role models have on younger individual’s propensity towards entrepreneurial activities.

5. CONCLUSIONS AND IMPLICATIONS

Entrepreneurship is increasingly being recognised as an indispensable tool for consolidating the market based economic system adopted by transition economies. Despite this, little is known about the factors that influence the decision to become entrepreneurially active in these countries. Academic research has recently demonstrated that differences in entrepreneurship levels are in-part explained by the varied impact across territories of entrepreneurial role models (Lafuente et al., 2007 and Vaillant and Lafuente, 2007). Because Romania passed from a formal institutional framework based on central planning to one oriented towards a market economy, it had a near absence of entrepreneurial role models when it abandoned central planning. These radical institutional changes happened almost two decades ago, and the question

rising is how did this affect those younger individuals that have lived most of their lives under a market system?

The main research objective guiding this paper was to identify whether the impact of role models over entrepreneurial activity in Romania is generationally driven. To do this a rare event logit model was applied to a sample of 1449 adults residing in Romania, where interaction terms between age and the presence of role models were introduced to detect the differentiated effect that the presence of entrepreneurial examples have on the different stages of an individual's life cycle.

The main contribution of the study indicates that the influence of role models over entrepreneurial activity can be generationally distinct. This distinction appears to be marked by the deep institutional change that has occurred in Romania when the country abandoned the planned economy to adopt a market based economic system. Those individuals that have spent all of their adult life under market institutions were significantly more influenced into entrepreneurial activities if they had personal knowledge of an entrepreneurial role model. The older the individual, and consequently the greater the time spent under an institutional framework based upon a planned economy, the lower the impact that entrepreneurial role models had over their business creation behaviour.

One of the possible interpretations of our findings is the possible existence of 'institutional memory' when it comes to entrepreneurial role models and their effect over entrepreneurship. Past research has demonstrated territorial variance in the influence of role models over entrepreneurial activity. This was found to mostly be due

to the embedded character as well as the distinct evolutionary path dependency of informal institutions across territories. But within the same territory, could a radical break in the institutional framework, as has happened in Romania, split the institutional references of its population. Could it be that ‘institutional memory’ may contribute to distinctions in the influence of social traits over entrepreneurship across generations of the same territory? Could it be that a social trait such as entrepreneurial role models, known to be significantly affected by the institutional framework, influence differently individuals subject to the same institutions. Could the level of ‘institutional memory’ that individuals have retained from past institutional frameworks influence the current impact of social policy, such as entrepreneurial support policy?

More precisely, the findings of this paper support the argument that entrepreneurship promotion, especially in what concerns fostering of an adequate socio-cultural context, fertile for new business creation and growth, is more often than not a generational process. The search for short-term results for such policies can result, depending on the performance measurement tools used, in the mistaken impression that in certain areas entrepreneurship support policies are not having the desired impact.

The study presented in this paper was limited to the analysis of the impact of role models over entrepreneurial activity. However, our results have opened up many new lines for future research, especially within institutional research. There is a need for greater investigation into the concept of ‘institutional memory’ and the possible contradictions and/or complementarities this may have with the notion of institutional embeddedness which has consolidated itself within the academic literature.

As with any cross-sectional study, the main limitation of this paper lies in the absence of a longitudinal analysis that could have given a greater evolutionary perspective to the study. Of course there is also the opportunity to expand on the current research by introducing a greater number of socio-cultural variables into the analysis. Further studies could also include comparisons with other territories to enrich the institutional content of the analysis.

REFERENCES

- Acs, Z.J. and Audretsch, D.B. (1988) 'Innovation in Large and Small Firms: An Empirical Analysis', *American Economic Review* 78 (4): 678 – 690.
- Acs, Z.J. and Varga, A. (2004) 'Entrepreneurship, agglomeration and technological change', paper presented at the first GEM Research Conference, 1 – 3 April 2004, Berlin.
- Brown, J., Earle, J. and Lup, D. (2005) 'What Makes Small Firms Grow? Finance, Human Capital, Technical Assistance, and the Business Environment in Romania', *Economic Development and Cultural Change* 53: 33 – 70.
- Brush, C. (1992) 'Research on women business owners: Past trends, a new perspective and future directions', *Entrepreneurship Theory and Practice* 16 (4): 5 – 30.
- Bunce, V. (2000) 'Postsocialisms', in *Between Past and Future: The Revolutions of 1989 and Their Aftermath*, in S. Antohi, and V. Tismaneanu (eds.) *Between Past and Future: The Revolutions of 1989 and Their Aftermath*, Budapest, pp. 122 – 152. Hungary: Central European University Press.

- Bygrave W. D. (1995) 'Theory building in the entrepreneurship paradigm', in I. Bull, H. Thomas and G. Willard (eds.) *Entrepreneurship Perspectives on Theory Building*, pp. 129 – 158. Oxford, UK: Elsevier.
- Carter, S., Anderson, S. and Shaw, E. (2001) 'Women's business ownership: A review of the academic, popular and internet literature', Report to the Small Business Service, RR 002/01 at: <http://business.king.ac.uk/research/kbssbs/womsbus.pdf>
- Centre for Small and Medium-Sized Enterprises (1997) *The Private Sector of Small and Medium-Sized Enterprises in Romania*, Annual Report.
- Clark, E. and Soulsby, A. (1999) *Organisational Change in Post-Communist Europe*. London: Routledge.
- Davidsson, P. (1995) 'Determinants of Entrepreneurial Intentions', Paper presented at the RENT IX Conference, 23 – 24 November. Piacenza, Italy.
- Davidsson, P. (2004) 'Role Models and Perceived Social Support', in W. Gartner, K. Shaver, N. Carter and P. Reynolds (eds.), *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*, chapter 16, pp. 179 – 185. London: SAGE Publications.
- Donkels, R. (1991) 'Education and entrepreneurship experiences from secondary and university education in Belgium', *Journal of Small Business and Entrepreneurship* 9 (1): 7 – 21.
- Douglas, E. and Shepard, D. (2002) 'Self – Employment as a Career Choice: Attitudes, Entrepreneurial Intentions, and Utility Maximization', *Entrepreneurship Theory and Practice* 26 (3): 81 – 90.
- Driga, O., Lafuente, E. and Vaillant, Y. (2008) 'Reasons behind the relatively lower entrepreneurial activity levels of rural women: Looking into rural Spain', *Sociologia Ruralis* forthcoming.

- Drucker, P. (1984) 'Our entrepreneurial economy', *Harvard Business Review* 62 (1): 59 – 64.
- Drucker, P. (1985) *Entrepreneurship and Innovation: practice and Principles*. New York: Harper Business.
- Dubini, P. (1989) 'The Influence of Motivations and Environment on Business Start-ups: Some Hints for Public Policies', *Journal of Business Venturing* 4 (1): 11 – 26.
- European Commission (2003a) Green Paper: Entrepreneurship in Europe, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM (03) 27.
- European Commission. (2003b) 2003 Regular Report on Romania's progress towards accession. Available at [Http://ec.europa.eu/enlargement/archives/pdf/key_documents/2003/rr_ro_final_en.pdf](http://ec.europa.eu/enlargement/archives/pdf/key_documents/2003/rr_ro_final_en.pdf).
- Fornahl, D. (2003) 'Entrepreneurial activities in a regional context', in D. Fornahl and T. Brenner (eds.), *Cooperation, Networks and Institutions in Regional Innovation Systems*, pp. 38 – 57. Northampton, UK: Edward Elgar.
- Gartner, W.B. and Shane S.A. (1995) 'Measuring entrepreneurship over time', *Journal of Business Venturing* 10: 283 – 301.
- Gibson, D. (2004) 'Role-Models in career development: New directions for theory and research', *Journal of Vocational Behavior* 65: 134 – 156.
- Greene, W. (2003) *Econometric Analysis*. Fifth edition. Upper Saddle River. New Jersey, USA: Prentice – Hall.
- Hofstede, G. (1980) *Culture's Consequences: International Differences in Work-related Values*. Beverly Hills: Sage.

- Ibrahim, G. and Galt, V. (2002) 'Bye-bye central planning, hello market hiccups: institutional transition in Romania', *Cambridge Journal of Economics* 26: 105 – 118.
- International Monetary Fund (IMF) (1996) 'Romania: Recent Economic Developments and Selected Background Studies', *IMF Staff Country Reports*, number 96/4, Washington D.C.
- Johansson, E. (2000) 'Self-employment and Liquidity Constraints: Evidence from Finland', *Scandinavian Journal of Economics* 102 (1): 123 – 134.
- Johnson, S., McMillan, J. and Woodruff, Ch. (2000) 'Entrepreneurs and the ordering of institutional reform', *Economics of Transition* 8 (1): 1 – 36.
- Katz, J. (1994) 'Modelling entrepreneurial career progressions : Concepts and considerations', *Entrepreneurship Theory and Practice* 19 (2) : 23 – 36.
- King, G. and Zeng, L. (2001a) 'Logistic Regression in Rare Events Data', *Political Analysis* 9 (2) : 137 – 163.
- King, G. and Zeng, L. (2001b) 'Explaining Rare Events in International Relations', *International Organization* 55 (3): 693 – 715.
- Kirchhoff, B.A. and Phillips, B.D. (1988) 'The Effect of Firm Formation and Growth on Job Creation in the United States', *Journal of Business Venturing* 3: 261 – 272.
- Kirchhoff, B.A. and Phillips, B.D. (1992) 'Research Applications of the Small Business Data Base of the U.S. Small Business Administration', in D.L. Sexton and J.D. Kasarda, *The State of the Art of Entrepreneurship*, chapter 10, pp. 243 – 267. UK: PWS-KENT Pub. Co.
- Kovacs, J. and Virag, I. (1995) 'The Social-Economic Role of Education Today', in J. Kovacs (ed.), *Technological Lag and Intellectual Background: Problems of Transition in East Central Europe*, pp. 199 – 217. Darmouth: Publishing Company.

- Krueger, N. (1993) 'The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability', *Entrepreneurship Theory and Practice* 18 (1): 5 – 21.
- Krueger, N. and Brazeal, D. (1994) 'Entrepreneurial potential and potential entrepreneurs', *Entrepreneurship Theory and Practice* 18 (3): 91 – 104.
- Lafuente, E. and Driga, O. (2008) 'Business Demography in Romania: a Summary of Business Trends (1999-2005)', Centre for Entrepreneurship & Business Research (CEBR) Working Paper Series WP 01/2008, available at www.kfacts.com.
- Lafuente, E., Vaillant, Y. and Rialp, J. (2007) 'Regional differences in the influence of Role-Models: Comparing the Entrepreneurial Process of Rural Catalonia', *Regional Studies* 41 (6): 779 – 795.
- McMillan, J. and Woodruff, Ch. (2002) 'The Central Role of Entrepreneurs in Transition Economies', *Journal of Economic Perspectives* 16 (3): 153 – 170.
- Murrell, P. (2003) 'Firms facing new institutions: transactional governance in Romania', *Journal of Comparative Economics* 31: 695 – 714.
- Neef, R. (2002) 'Aspects of the Informal Economy in a Transforming Country: The case of Romania', *International Journal of Urban and Regional Research* 26 (2): 299 – 322.
- North, D.C. (1981) *Structure and Change in Economic History*, (New -York: Norton).
- North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D.C. (1995) 'Structural change of institutions and the process of transformation', *Prague Economic Papers* 3: 229 – 234.
- North, D.C. (2005) *Understanding the Process of Economic Change*. Princeton University Press.

- OECD (1998) *OECD Economic Surveys 1997 – 1998. Romania*, Centre for Cooperation with Non-Members. Paris: OECD.
- OECD (2003) *Entrepreneurship and Local Economic Development: Programme and Policy Recommendations*. Paris: OECD.
- OECD (2004) *Women's entrepreneurship: Issues and policies*. By F. Delmar and C. Holmquist for the 2nd OECD conference of ministers responsible for SMEs, Promoting Entrepreneurship and Innovative SMEs in a Global Economy. Istanbul, 3-5 June.
- Pasti, V. (1997) *The Challenges of Transitions: Romania in Transition*. Translation by F. Cusin, East European Monographs. New York: Columbia University Press.
- Pavitt, K., Robson, M. and Townsend, J. (1987) 'The Size Distribution of Innovating Firms in the UK: 1945-1983', *Journal of Industrial Economics* 35 (3): 297 – 316.
- Scarlat, C. and Scarlat, E. (2007) 'Theoretical Aspects of the Economic Transition: The Case of Romania', *Managing Global Transitions* 5 (4): 307 – 331.
- Sexton, D.L. (1986) 'Role of Entrepreneurship in Economic Development', in R.D. Hisrich (ed.) *Entrepreneurship, Intrapreneurship, and Venture Capital*, chapter 2, pp. 27 – 39. Massachusetts: D.C. Heath and Company.
- Shapero, A. (1971) 'An action program for entrepreneurship: the design of action experiments to elicit technical company formation the Ozarks Region, Austin, US'. As referred to in J.M. Veciana (1980) 'Un concepto empírico de empresario', *Revista Económica Banca Catalana* 56 (marzo): 10 – 25.
- Shapero, A. and Sokol, L. (1982) 'The Social dimensions of entrepreneurship', in C.A. Kent, D.L. Sexton and K.H. Vesper (eds.), *Encyclopedia of Entrepreneurship*, 1982, 72-90. New Jersey: Englewood Cliffs.

- Shapiro, E., Haseltine, F. and Rowe, M. (1978) 'Moving up: Role-Models, mentors, and the "patron-system"', *Sloan Management Review* 19: 51 – 58.
- Schein, E. (1978) *Career dynamics: Matching individual and organizational needs*. Reading, Massachusetts: Addison-Wesley.
- Singh, G. and Denoble, A. (2003) 'Early retirees as the next generation of entrepreneurs', *Entrepreneurship Theory and Practice* 28 (2): 207 – 226.
- Singh, G. and Verma, A. (2001) 'Is there life after career employment? Labour market experience of early retirees'. in V. Marshall, W. Heinz, H. Kruegar and A. Verma (eds.), *Restructuring work and the life course*. Toronto: University of Toronto Press.
- Smallbone, D. and Welter, F. (2001) 'The Distinctiveness of Entrepreneurship in Transition Economies', *Small Business Economics* 16: 249 – 262.
- Speizer, J. (1981) 'Role models, mentors, and sponsors: The elusive concepts. Signs', *Journal of Women in Culture and Society* 6: 692 – 712.
- Stoica, C. (2004) 'From Good Communists to Even Better Capitalists? Entrepreneurial Pathways in Post-Socialist Romania', *East European Politics and Societies* 18 (2): 236 – 277.
- Storey, D.J. (1982) 'Impact on the Local Economy', in D.J. Storey (ed.) *Entrepreneurship and the New Firm*, chapter 9, pp. 167 – 180. London: Croom Helm.
- Storey, D.J. (1988) 'The Role of Small and Medium-sized Enterprises in European Job Creation: Key Issues for Policy and Research', in M. Giaoutzi, P. Nijkamp and D.J. Storey (eds.), *Small and Medium Size Enterprises and Regional Development*, chapter 8, pp. 140 – 160. London: Routledge.
- Storey, D.J. (1994) 'Employment', in D.J. Storey (ed.), *Understanding the Small Business Sector*, chapter 6, pp. 160 – 203. London: Routledge.

- Tismaneanu, V. (1993) 'The quasi-revolution and its discontents: emerging political pluralism in post-Ceausescu Romania', *East European Politics and Societies* 7 (2): 309 – 348.
- Uusitalo, R. (2001) 'Homo enteprenaurus', *Applied Economics* 33: 1631 – 1638.
- Vaillant, Y. and Lafuente, E. (2007) 'Do different institutional frameworks condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity?', *Entrepreneurship and Regional Development* 19: 313 – 337.
- Veciana, J.M. (1980) 'Un concepto empírico de empresario', *Revista Económica Banca Catalana* 56 (marzo): 10 – 25.
- Venkataraman, S. (2004) 'Regional transformation through technological entrepreneurship', *Journal of Business Venturing* 19: 153 – 167.
- Vesper K. H. (1990) *New Venture Strategies*, Englewood Cliffs. New Jersey: Prentice Hall.
- Wagner, J. (2004) 'Are Young and Small Firms Hothouses for Nascent Entrepreneurs? Evidence from German Micro Data', *Applied Economics Quarterly* 50 (4): 379 – 391.
- Wennekers, S. and Thurik, R. (1999) 'Linking Entrepreneurship and Economic Growth', *Small Business Economics* 13 (1): 27 – 56.
- White, S.B. and Reynolds, P.D. (1996) 'Government Programs and High Growth New Firms', *Frontiers of Entrepreneurship Research*. Massachusetts: Babson College.